

- a. a first solder bump array connecting the digital MCM substrate to the system substrate;
- b. a second solder bump array connecting the RF MCM substrate to the digital MCM substrate;
- c. a through hole interconnection through the digital MCM substrate electrically connecting an electrical node on the system substrate to an active electrical node on the RF MCM substrate, the through hole interconnection being electrically insulated from all electrical nodes on the digital MCM substrate.

24. (original) The stacked MCM package of claim 23 wherein the through hole interconnection comprises a first electrically isolated solder bump in the first solder bump array and a first electrically isolated solder bump in the second solder bump array.

25. (original) The stacked MCM package of claim 24 wherein the through hole interconnection from the system substrate to the RF MCM substrate is a ground connection.

26. (original) The stacked MCM package of claim 24 wherein the through hole interconnection from the system substrate to the RF MCM substrate is an RF input connection.

27. (original) The stacked MCM package of claim 26 wherein the RF input connection is connected to an RF antenna.

28. (original) The stacked MCM package of claim 25 wherein the stacked MCM package comprises an additional through hole interconnection through the digital MCM substrate electrically connecting an electrical node on the system substrate to an active electrical node on the RF MCM substrate, the additional through hole interconnection being electrically insulated from all electrical nodes on the digital MCM substrate, and wherein the additional through hole interconnection from the system substrate to the RF MCM substrate is an RF input connection.

29. (original) The stacked MCM package of claim 24 further comprising a Faraday cage around the first electrically isolated solder bump.

30. (original) The stacked MCM package of claim 29 wherein the Faraday cage comprises at least three solder bumps arranged around the first electrically isolated solder bump, with the at least three solder bumps of the Faraday cage connected to a common ground.

31. (original) The stacked MCM package of claim 29 wherein the common ground is the ground for the RF MCM.

Cancel claim 32.

33. (currently amended) A ~~The stacked MCM package of claim 32~~
wherein an the RF MCM is mounted on an RF MCM substrate and a the
digital MCM is mounted on a digital MCM substrate, the stacked MCM
package further comprising:

- a. a first solder bump array connecting the RF MCM substrate to
the system substrate;
- b. a second solder bump array connecting the digital MCM
substrate to the RF MCM substrate;
- c. a through hole interconnection through the digital MCM
substrate electrically connecting an electrical node on the system
substrate to an active electrical node on the digital MCM substrate,
the through hole interconnection being electrically insulated from all
electrical nodes on the RF MCM substrate.

34. (original) The stacked MCM package of claim 33 wherein the through
hole interconnection comprises a first electrically isolated solder bump in
the first solder bump array and a first electrically isolated solder bump in
the second solder bump array.

35. (original) The stacked MCM package of claim 34 wherein the through
hole interconnection from the system substrate to the digital MCM
substrate is a ground connection.

36. (original) The stacked MCM package of claim 34 wherein the through hole interconnection from the system substrate to the digital MCM substrate is a digital input connection.

37. (original) The stacked MCM package of claim 34 wherein the stacked MCM package comprises an additional through hole interconnection through the RF MCM substrate electrically connecting an electrical node on the system substrate to an active electrical node on the digital MCM substrate, the additional through hole interconnection being electrically insulated from all electrical nodes on the RF MCM substrate, and wherein the additional through hole interconnection from the system substrate to the digital MCM substrate is a digital input connection.

38. (original) The stacked MCM package of claim 33 further comprising a Faraday cage around the first electrically isolated solder bump.

39. (original) The stacked MCM package of claim 38 wherein the Faraday cage comprises at least three solder bumps arranged around the first electrically isolated solder bump, with the at least three solder bumps of the Faraday cage connected to a common ground.

40. (original) The stacked MCM package of claim 39 wherein the

common ground is the ground for the digital MCM.